

***Amendments to the Claims:***

This listing of claims will replace all prior versions, and listings, of claims in the application:

***Listing of Claims:***

1-53. (canceled)

54. (Currently Amended) A method for preserving a biological material selected from the group consisting of cells, cell aggregates, tissue, organs, ~~biological fluids,~~ natural liposomes and synthetic liposomes, the method comprising:

- (a) adding a preservation solution to said biological material, the preservation solution comprising one or more polyphenols;
- (b) freeze drying the biological material; and
- (c) storing the biological material under appropriate storing conditions.

55. (Previously Presented) The method of claim 54, wherein the one or more polyphenols comprise one or more catechins.

56. (Previously Presented) The method of claim 55, wherein the one or more catechins are epigallocatechin gallate (EGCG) catechins.

57. (Previously Presented) The method of claim 54, wherein the one or more polyphenols are derived from green tea extract (GTE).

58. (Previously Presented) The method of claim 54, wherein the preservation solution does not comprise a significant amount of glycerol.

59. (Previously Presented) The method of claim 54, wherein the preservation solution does not comprise a significant amount of DMSO.

60. (Previously Presented) The method of claim 54, wherein the preservation solution comprises a macromolecule.

61. (Previously Presented) The method of claim 60, wherein the macromolecule is dextran.

62. (Previously Presented) The method of claim 54, wherein the preservation solution comprises trehalose.

63. (Previously Presented) The method of claim 54, wherein the preservation is cryopreservation, the preservation solution is a cryopreservation solution, and the freeze drying of step (b) is to a temperature below 0°C.

64-65. (Cancelled)

66. (Previously Presented) The method of claim 54, wherein the biological material comprises cells selected from the group consisting of red blood cells (RBC), white blood cells (WBC), mononuclear cells (MNC), umbilical cord blood cells (UCB), hematopoietic stem cells (HSC) and bacteria.

67. (Withdrawn) The method of claim 66, wherein the biological material comprises RBC and the biological material is frozen such that after thawing under appropriate thawing conditions the biological material comprises free hemoglobin levels below 10 percent.

68. (Withdrawn) The method of claim 67, wherein the one or more polyphenols comprise epigallocatechin gallate (EGCG) and the preservation solution does not comprise a significant amount of glycerol or DMSO.

69. (Withdrawn) The method of claim 67, further comprising:

- (d) thawing the biological material under appropriate thawing conditions such that, after thawing, the biological material comprises RBC suspended in a liquid; and
- (e) separating the RBC from said liquid.

70. (Withdrawn) The method of claim 68, wherein the method does not comprise a step of washing the biological material.

71. (Withdrawn) The method of claim 69, wherein step (e) further comprises:

- (e') centrifuging the biological material such that the majority of RBC are in a pellet and the majority of the liquid is in a supernatant; and
- (e'') removing the supernatant.

72. (Withdrawn) The method of claim 71, wherein after step (e'') the free hemoglobin levels in the pellet are below 2 percent.

73. (Withdrawn) A biological material preserved by the method of claim 54.

74. (Withdrawn) The biological material of claim 73, wherein the one or more polyphenols comprise one or more catechins.

75. (Withdrawn) The biological material of claim 74, wherein the one or more catechins are epigallocatechin gallate (EGCG) catechins.

76. (Withdrawn) The biological material of claim 73, wherein the biological material does not comprise a significant amount of glycerol.

77. (Withdrawn) The biological material of claim 73, wherein the biological material does not comprise a significant amount of DMSO.

78. (Withdrawn) The biological material of claim 73, comprising less than 10% H<sub>2</sub>O as compared with its H<sub>2</sub>O content before preservation.

79. (Withdrawn) A frozen viable biological material, comprising:

RBC,

wherein after thawing under appropriate thawing conditions, the biological material comprises free hemoglobin levels of below 2 percent.

80. (Withdrawn) The frozen biological material of claim 79, further comprising essentially no glycerol.

81. (Withdrawn) The frozen biological material of claim 79, further comprising essentially no DMSO.

82. (Withdrawn) A method of preparing a preservation solution for preserving a biological material, comprising:

mixing one or more polyphenols with a physiologically acceptable carrier.

83. (Withdrawn) The method of claim 82, wherein the one or more polyphenols comprise one or more catechins.

84. (Withdrawn) The method of claim 83, wherein the one or more catechins are epigallocatechin gallate (EGCG) catechins.

85. (Withdrawn) The method of claim 81, wherein the one or more polyphenols are derived from GTE.

86. (Withdrawn) A method for the preservation of a biological material comprising RBC, comprising:

- (a) freeze drying the biological material under appropriate freeze drying conditions; and
- (b) storing the biological material under appropriate storing conditions, wherein after thawing under appropriate thawing conditions the biological material comprises free hemoglobin levels of below 10 percent.

87. (Withdrawn) The method of claim 86, wherein the appropriate freeze drying conditions comprise adding a freezing solution.

88. (Withdrawn) The method of claim 86, wherein the freezing solution comprises one or more polyphenols.

89. (Withdrawn) The method of claim 86, further comprising:

- (c) thawing the biological material under appropriate thawing conditions such that, after thawing, the biological material comprises RBC suspended in a liquid; and
- (d) separating the RBC from the liquid.

90. (Withdrawn) The method of claim 89, wherein step (d) further comprises:

- (d') centrifuging the biological material such that the majority of RBC are in a pellet and the majority of the liquid is in a supernatant; and
- (d'') removing the supernatant.

91. (Withdrawn) The method of claim 90, wherein free hemoglobin levels are below 2 percent.

92. (Currently amended) A method for preserving a biological material selected from the group consisting of cells, cell aggregates, tissue, organs, natural liposomes and synthetic liposomes, comprising:

- (a) adding a preservation solution to the biological material, the preservation solution comprising one or more polyphenols and being essentially free from any polyalcohol;
- (b) freeze drying the biological material; and
- (c) storing the biological material under appropriate storing conditions.

93. (Withdrawn) A preserved viable biological material, having a volume exceeding 1 ml, preserved for a period exceeding 40 days.

94. (New) The method according to claim 54, wherein at least 30% of the biological material remains viable.

95. (New) The method according to claim 54, wherein at least 50% of the biological material remains viable.

96. (New) The method according to claim 54, wherein at least 75% of the biological material remains viable.

97. (New) The method according to claim 92, wherein at least 30% of the biological material remains viable.

98. (New) The method according to claim 92, wherein at least 50% of the biological material remains viable.

99. (New) The method according to claim 92, wherein at least 75% of the biological material remains viable.